

ABSTRACT OF THE DISCLOSURE

It is intended to provide a frequency multiplier capable of switching as appropriate among frequency signals having frequencies obtained by multiplying prescribed multiplication numbers with low current consumption and a simple circuit configuration in effectively utilizing frequencies in radio communication equipment. The base terminals of an input differential pair are biased by respective voltage sources, and an input frequency signal is input to one of the base terminals. The differential output terminals are connected to the base terminals of next-stage buffer circuit transistors, and their emitter terminals are connected to respective diodes. A full-wave-rectified signal, which is obtained at the connecting point of the cathode terminals of the diodes, is input to a comparison differential pair, which produces an output frequency signal by comparing the full-wave-rectified signal with a reference voltage. The frequency of the output frequency signal is switched as appropriate between the same frequency as the frequency of the input frequency signal and its double frequency by the manner of setting the bias voltages of the voltage sources.